

# Glenn Research Center, Occupational Health Programs Manual

## Chapter 16 – FOOD SERVICE SANITATION

**NOTE:** The current version of this chapter is maintained and approved by the Safety, Health, and Environmental Division ([SHED](#)). The creation date of this chapter is March 2007. The current version is maintained on the Glenn Research Center intranet at <http://smad-ext.grc.nasa.gov/emo/pub/ohpm/ohpm-manual.pdf>. Approved by: Occupational Health Branch Chief, Gayle Reid

### PURPOSE

The purpose of this manual is to outline the basic methods to prevent outbreaks of food-borne illnesses by assuring that all food served or vended at Glenn Research Center (GRC) is clean, wholesome, and free of pathogenic organisms as well as organic or inorganic toxins (including those of bacterial origin). This applies to transporting, storing, preparing, serving and vending. This also applies equally to all non-appropriated fund Exchange Operations food activities performed at GRC. In general, the provisions and guidelines prescribed herein are consistent with such provisions specified in the United States Department of Health and Human Services, Public Health Service Food and Drug Administration's (FDA) Food Code, recommendation of the U.S. Public Health Service and applicable regulations of the State of Ohio.

### APPLICABILITY

This manual is applicable to all entities engaged in the preparation of food for consumption by Center personnel. This manual also includes the food served or prepared by the staff of the Lewis Little Folks (LLF) Daycare Center.

### DEFINITIONS

Salmonella - Bacteria that causes food poisoning

Salmonella Typhi - Salmonella Typhi is a human-specific pathogen causing the systemic febrile illness typhoid fever

Shigella – Bacteria that forms on food.

Escherichia Coli (E-coli) - *E. coli* O157:H7, one of hundreds of strains of the bacterium Escherichia coli, is an emerging cause of food-borne illness.

Hepatitis - There are five types of Hepatitis viruses.

A – The hepatitis A virus (HAV) can affect anyone. In the United States, hepatitis A can occur in situations ranging from isolated cases of disease to widespread epidemics.

B – The hepatitis B is a serious disease caused by a virus that attacks the liver. The virus which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, Cancer, liver failure and death.

C – Hepatitis C is a liver disease caused by the hepatitis C virus (HCV), which is found in the blood of persons who have the disease. HCV is spread by contact with the blood of an infected person.

D – Hepatitis D is a liver disease caused by the hepatitis D virus (HDV), which needs the hepatitis B virus to exist. Hepatitis D virus (HDV) is found in the blood of persons infected with the virus.

E – Hepatitis E is a liver disease caused by the hepatitis E virus (HEV) transmitted in much the same way as Hepatitis A virus. Hepatitis E, however does not occur often in the United States

## **POLICY**

It is the GRC NASA Occupational Medicine policy to promote healthy behaviors by creating a work environment supportive of healthy choices. This goal is further accomplished by providing to the employees sound and safe nutrition services to assist with proper diet, meal planning and weight and disease management.

## **RESPONSIBILITIES**

### Occupational Health Branch

The GRC Occupational Health Branch (OHB) through the Senior Technical Lead Occupational Health shall conduct a continuing program of inspection and surveillance in all areas where food is stored, prepared, served, transported, vended, or consumed. Such inspections are performed under the guidelines established by this Chapter of the Occupational Health Branch Manual and the FDA Food Code.

### Occupational Health Branch - Industrial Hygienist (IH) /Epidemiological Investigations

Should the need arise for an epidemiological investigation to be conducted, the Senior Technical Lead for Industrial Hygiene will be contacted who will coordinate this action with personnel from the Center for Disease Control (CDC).

### Medical Services Nutritionist

The Medical Services Nutritionist will on a monthly basis inspect the Cafeterias to ensure compliance with regulations concerning cleanliness of facility and equipment, proper storage and serving temperatures of food.

### Food Service Personnel

Personnel that prepare, transport, store and serve food shall ensure all areas under their control meet or exceed the minimum acceptable requirements established by NASA GRC directives, as well as applicable federal and state regulations for the safe handling of food.

Food Service Personnel shall develop and implement a Hazard Analysis and Critical Control Point (HACCP) food safety plan unique to each facility, which includes a program of self-inspection and continuous improvement. It is essential that the unique conditions within each facility be considered during the development of the plan. A generic plan is not acceptable. The food safety plan shall identify potential hazards of significance and include preventative measures to ensure or improve food safety. Critical Control Points shall be identified and preventative measures incorporated into recipes.

Food Service personnel will adhere to the established practices of food service sanitation, storage, preparation, display and serving of foods. Additionally, the contractor shall develop a written food safety policy that assigns responsibilities, accountability and authority to all as well as applicable federal and state regulations for the safe handling of food.

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Food Service personnel will adhere to the established practices of food service sanitation, storage, preparation, display and serving of foods. Additionally, the contractor shall develop a written food safety policy that assigns responsibilities, accountability and authority to all affected organizations, departments and employees involved with food sanitation. The policy should be reviewed and updated annually and contain the following procedures:

- Epidemiological investigations
- Food safety inspections
- Procedures based on Hazard Analysis Critical Control Point (HACCP)
- Process for unsatisfactory food safety inspections
- Training requirements

- Sanitary practices
- Employee medical examinations requirements
- Monitoring requirements
- Recordkeeping requirements
- Corrective actions process

Food Service Personnel shall ensure that the OHB Point of Contact (POC) is promptly notified in the event of an emergency, such as a fire, flood, power outage, or similar event which might result in the contamination of food.

Food Service Personnel shall provide properly prepared facility plans to the OHB designated representative for review. This includes proposed food service facilities, redesigned facilities, facilities that intend to make significant changes to the existing menu or theme. Facility plans shall include menu plans, and equipment specifications.

Food Service Personnel shall provide training and maintain certification requirements for all food service employees as identified by the OHB designated representative.

Food Service Personnel shall maintain the most recent copy of the GRC inspection form "Food Facility Evaluation" and have it available for review by the OHB designated representative.

Food Service Personnel shall ensure proper food handling procedures are observed at all times. Each employee shall be responsible for compliance with all food sanitation requirements in his/her work area.

All food service personnel shall be able to pass regular medical examinations as prescribed by the NASA Occupational Health Program.

When food service personnel become ill, proper precautions shall be taken to prevent contaminating food. If the illness or infection is severe, you may be asked to leave work. All open cuts, sores, or burns must be kept covered.

Food Service Personnel shall maintain high standards of personal hygiene, and follow the following guidelines:

- Be sure to wash hands after each bathroom use
- Keep hands clean and fingernails trimmed
- Keep uniforms/clothes clean and neat
- Hairstyles shall be kept neat, trimmed and appropriate for food services.
- Beards and mustaches shall be kept neat and trimmed.
- No excessive jewelry shall be worn, such as extra rings, dangling bracelets.
- Keep hands away from face, mouth, and hair while in service or production areas. Eating is not permitted in these areas.
- Cigarette smoking is not allowed in service or production areas. Wash hands after each use of tobacco.
- Always maintain proper food safety and sanitation procedures to avoid causing a food-borne illness. Since not following these proper procedures can be harmful to our valued customers, food safety infractions will be appropriately disciplined.

#### Foodborne Disease Prevention Methods

Exchange Food management supervision will ensure all food handlers report to the Medical

Services complex located in building 15, when any symptoms of infections and/or communicable disease are present. Food employees shall report information in a manner that allows the person in charge to prevent the likelihood of food-borne disease transmission, including the following:

- Employee diagnosed illness of Salmonella Typhi, Shigella,
- Escherichia Coli 0157:H7 or Hepatitis.
- Employee's symptoms of gastrointestinal illness such as diarrhea, fever, vomiting, jaundice or sore throat with fever.

- Employee has boil or infected wound containing pus or a wound that is open or draining and is on the hands or wrists or exposed portions of the arms.

#### Additional Foodborne Disease Prevention Methods

In addition, illnesses of similar nature occurring in the home of the Food Handler are significant and should be reported for medical determination of the likelihood of transmission if the employee in the same household as a person who is diagnosed with a disease caused by S. Typhi, Shigella, E.Coli 0157:H7 or Hepatitis

Food management supervision will ensure that all food handlers that have been absent from work due to illnesses or conditions listed in the Ohio Administrative Code, Chapter 3717-1, Ohio Uniform Food Safety Code, Rule 3717-1-02.1 shall obtain medical clearance prior to returning to work.

#### Equipment/Facility Design Features

The design of a food establishment shall meet the requirements outlined in the FDA Food Code, unless they cannot be technically accomplished. The OHB shall approve the design deviation.

#### Inspections

The OHB designated representative shall perform periodic announced and unannounced inspections of all food service facilities to ensure compliance with applicable regulatory requirements. These inspections shall occur anytime during operational hours, but shall not disrupt the selling of food. Where inspections indicate non-compliance with GRC approved procedures and controls, the responsible organization for that activity shall correct all discrepancies and notify the Occupational Health Branch when remediation has been completed.

#### Storage Techniques

Foods left over from serving lines will not be frozen. They must be wrapped/containerized, labeled, dated, and refrigerated. Food not subject to further washing or cooking before serving shall be stored in a way that protects it against cross contamination from food requiring washing or cooking (e.g., store raw vegetables above raw meats). Separate different types of raw animal products by use of different containers, partitions, shelving, or other approved means.

#### Preparation and Storage of Sandwiches

Unless a sandwich is made for an individual customer to consume immediately, it is considered a pre-wrapped sandwich.

All pre-wrapped sandwiches must be wrapped individually and marked with date of preparation.

When sandwiches are made with potentially hazardous ingredients, and are to be sold or dispensed as refrigerated items, chill the potentially hazardous ingredients to 41°F or below before making sandwiches. When possible, use chilled or frozen bread.

Never prepare sandwiches from leftover ingredients.

Sandwiches must not be reworked, rewrapped, remarked or relabeled to extend their shelf life. Outdated sandwiches must be considered spoilage and disposed as garbage.

#### Heated Sandwiches

Sandwiches to be dispensed from a heated holding unit must be heated rapidly by infrared, microwave, or similar type oven prior to placing them into a holding unit for sale.

Sandwiches to be dispensed from a heated holding unit will be maintained at a minimum temperature of 140°F and will have a shelf life of 5 hours.

#### Refrigerated Sandwiches

Sandwiches to be dispensed from refrigerated holding unit shall be maintained at not less than 41°F and will have a shelf life of 96 hours. Sandwiches shall not be stored in direct contact with ice.

### Time and Temperature Specifications

One of the greatest factors in food-borne illness is time/temperature abuse are diseases causing Organisms to grow and multiply rapidly between the temperatures of 41 degrees F and 135 degrees F (known as the time/temperature danger zone). Potentially hazardous/high protein foods that have been held (total time from receiving to serving) of 4 hours in the temperature danger zone are not safe for consumption. Foods that have fallen out of safe time/temperature holding parameters shall be immediately discarded. Foods that will soon be out of safe time/temperature holding parameters, and cannot be safely reheated or cooled, shall be immediately discarded.

### Vermin Control

Effective control measures shall be taken to protect against entry into the food establishment, and the breeding or presence on the premises, of rodents, flies, roaches, and other pests.

There shall be an ongoing insect control-spraying program using only OHB approved chemical pesticides, applied by personnel who are licensed. This program will be monitored by OHB and Exchange Activity Manager on a periodic basis.

### Food Service Sanitation Education

When possible, prior to employment, all food service personnel should have received formal training in the principles and practices of food service sanitation. Employees hired that have had formal training will possess certificated and will have attended a certificate producing course such as ServSafe or equivalent. For those new hires that have not attended a certificate producing course, they will have thirty days to enroll in a class such as ServSafe or an equivalent course, however the employee will not perform any work in which he/she handles food until the class is taken and the employee certified.

Managers who are responsible for the storage, preparation, display, and serving of foods to Center personnel shall demonstrate their knowledge of food borne disease prevention, application of HACCP principles and of the FDA Food Code by being certified as a food protection manager.

## **RECORDS**

- Employee Training Records
- Previous Inspections
- Physical Examinations (Dates only)

## **REFERENCES**

- NPD 1800.2B – NASA Occupational Health Program
- NPD 1810.2B – NASA Occupational Medicine Program
- NPR 1800.1 – NASA Occupational Health Program Procedures
- Center for Disease Control (CDC) Food Safety Office
- National Environmental Health Association Food Safety Education Resources
- USDA's 2001 FDA Food Code
- U.S. Department of Agriculture (USDA)/FDA Center for Food Safety and Applied Nutrition
- USDA/FDC (Federal Food, Drug and Cosmetic Act) Food-borne Illness Education
- USDA Food Safety Inspection Service (FSIS)
- USDA's Managing Food Safety

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